

**Work Order ID 71384**

Thursday, June 30, 2011 11:40:26 AM



Page 1

Item ID: D3511-041

Accept



Setup Start



Revision ID:

Item Name: Wearplate Assembly

Stop



Start Date: 6/30/2011 Start Qty: 8.00



Cust Item ID:

Required Date: 7/5/2011 Req'd Qty: 8.00



Customer:

Reference:

Approvals:

Process Plan: *H*

Date: 11/06/30

Tooling:

Date:

Run Start



QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N):

Date: \_\_\_\_\_

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3511	Rev A

100 0.00

Barcode for Operation 100  
FLOW WATER JET

Waterjet

Memo

0.00

B11-7-13

FLOW CNC Waterjet

*304 .180*1-Cut as per Dwg D3511  Dwg Rev: *A*  Prog Rev: *A*  2-  
Deburr if necessary  Identify as D3511-1

(8)

110 0.00

Barcode for Operation 110

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

B11-7-13

QC

Quality Control

120 0.00

Barcode for Operation 120

QC8- Inspect parts - second check

Memo

0.00

*8 u 102/14*

(78)

QC

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**Work Order ID 71384**

Thursday, June 30, 2011 11:40:26 AM

Page 2

**Item ID:** D3511-041

Accept



Setup Start

**Revision ID:****Item Name:** Wearplate Assembly

Stop

**Start Date:** 6/30/2011 **Start Qty:** 8.00**Cust Item ID:****Required Date:** 7/5/2011 **Req'd Qty:** 8.00**Customer:****Reference:****Approvals:** Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

**Sequence ID/  
Work Center ID**

130

**Operation  
Description**

Small Fab

**Set Up/  
Run Hours**

0.00

**Tool ID****Tool #****Plan  
Code****Accept  
Qty****Reject  
Qty****Reject  
Number****Insp.  
Stamp**

Brake NC

Brake NC

Memo

Bend fwd 90 deg. per dwg D3511

0.00

Sp 11/07/15

140



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

S 11/07/15

150



Large Fab

Large Fab

Weld per dwg A/R S.S. rod Batch: 1114509

0.00

Large Fab

Memo

weld cups as per dwg

0.00

11-08-16 JBL/EL

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**Work Order ID 71384**

Thursday, June 30, 2011 11:40:26 AM



Page 3

Item ID: D3511-041

Accept



Setup Start



Revision ID:

Item Name: Wearplate Assembly

Stop



Start Date: 6/30/2011 Start Qty: 8.00



Cust Item ID:

Required Date: 7/5/2011 Req'd Qty: 8.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

155



QC9- Inspect visual per QSI004- Fusion Welds

0.00

QC

Quality Control

160



Small Fab

0.00

Small Fab

Memo

0.00

Small Fab

Form as per Dwg D3511

180



QC5- Inspect part completeness to step on W/O

0.00

QC

Quality Control

Memo

0.00

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**Work Order ID 71384**

Thursday, June 30, 2011 11:40:26 AM



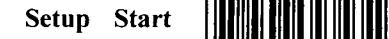
Page 4

Item ID: D3511-041

Accept



Setup



Start



Revision ID:

Item Name: Wearplate Assembly

Start Date: 6/30/2011 Start Qty: 8.00



Cust Item ID:

Required Date: 7/5/2011 Req'd Qty: 8.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run



Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

190



Powdercoat

Powder Coating

200



QC

Quality Control

Operation  
Description

Black Sandtex(Ref:4.3.5.7) per QSI005 4.3

Set Up/  
Run Hours

0.00

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Memo

START TIME:

10:00 0.00

OVEN TEMPERATURE:

320 0° FINISH TIME: 10:30

8X ✓ m/11/08/25

113728

QC3- Inspect Part Finish

0.00

8 BL 11-8-25.

Memo

0.00

210



Packaging

Packaging

Identify as per dwg &amp; Stock Location:

0.00

Memo

0.00

11/8/25 d 80

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**Work Order ID 71384**

Page 5

Thursday, June 30, 2011 11:40:26 AM

Item ID: D3511-041

Accept



Setup Start



Revision ID:

Item Name: Wearplate Assembly

Stop



Start Date: 6/30/2011 Start Qty: 8.00



Cust Item ID:

Required Date: 7/5/2011 Req'd Qty: 8.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

220



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

11/8/2011

CL 11108126

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

Thursday, June 30, 2011 11:40:32 AM

Page 1

Work Order ID: 71384



Parent Item: D3511-041



Parent Item Name: Wearplate Assembly

Start Date: 6/30/2011

Required Date: 7/5/2011

Start Qty: 8.00

Required Qty: 8.00

Comments: IPP Rev:A New Issue 06-05-04 JLM  
IPP Rev:B New process 06-05-05 EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M304S188		Purchased	No			100	sf	35.0000	1.484	12.49684			
----------	--	-----------	----	--	--	-----	----	---------	-------	----------	--	--	--



304 SHEET 0.188

			Location	Loc Qty	Loc Code		
--	--	--	----------	---------	----------	--	--

MAT020

35

113161

3

113216

32

13216

(8)

D3503-1		Manufactured	No			150	Each	16.0000	8	64			
---------	--	--------------	----	--	--	-----	------	---------	---	----	--	--	--



Cup

			Location	Loc Qty	Loc Code		
--	--	--	----------	---------	----------	--	--

WA030

Loc Qty

Loc Code

11-08-16 X/16

JBL

53788

16

16

71843

68

11-08-16 X/68

JBL

53

66

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b>	<u>71389</u>
<b>Description:</b> Wearplate	<b>Part Number:</b>	<u>D3511-1</u>
<b>Inspection Dwg:</b> D3511 <b>Rev:</b> A		<b>Page 1 of 1</b>

## FIRST ARTICLE INSPECTION CHECKLIST

## X First Article      Prototype

Measured by: 	Audited by: 	Prototype Approval:	N/A
Date: 11-7-13	Date: 11/02/14		Date: N/A

Rev	Date	Change	Revised by	Approved
A	06.05.08	New Issue P/O D3511-041	KJ/JLM	
B	07.01.17	Dimensions updated	KJ/JLM	

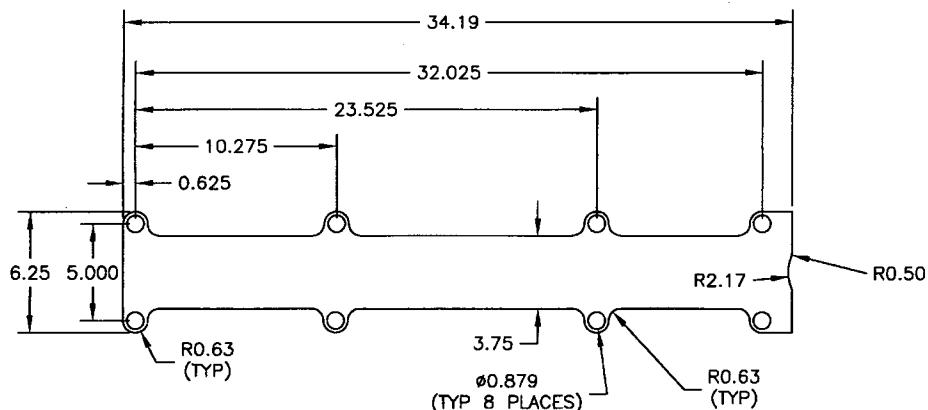
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

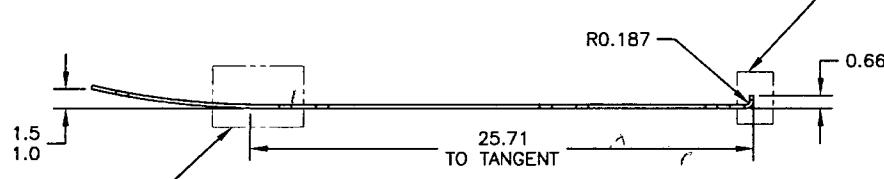
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



**D3511-1F FLAT PATTERN**

NOTE: BEND BEFORE WELDING



NOTE: BEND AFTER WELDING

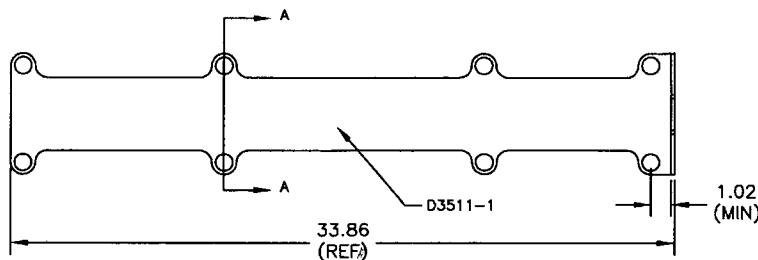
**D3511-1 BEND DETAIL**

**D3511-041 WEARPLATE ASSEMBLY**

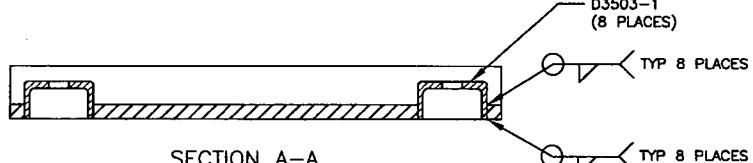
- 1) MAKE D3511-1F WEARPLATE FROM: AISI 304/316 STAINLESS STEEL (0.188 THICK) (REF DART MATERIAL SPEC. M304S7GA)
- 2) WELD PER DART QSI 004
- 3) FINISH: POWDER COAT ASSEMBLY BLACK SANTEX (REF. 4.3.5.7) PER DART QSI 005 4.3
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.015

**D3511-041 WEARPLATE ASSEMBLY PARTS LIST**

QTY	PART NUMBER	DESCRIPTION
X	D3511-041	WEARPLATE ASSEMBLY
1	D3511-1	WEARPLATE
8	D3503-1	CUP



D3511-1  
33.86 (REF)



**SECTION A-A**

**D3511-041 WELD DETAIL**

SHOP COPY

RETURN TO  
ENGINEERING

UNCONTROLLED COPY

SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

NO. 71384

PL 10430  
PL 71384

RELEASED

06.04.04

A	06.04.04	NEW ISSUE
DESIGN	PH	DRAWN BY
CHECKED	PH	APPROVED
DATE		DRAWING NO.
06.04.04		D3511
TITLE		SCALE
WEARPLATE		NTS

COPYRIGHT © 2006 BY DART AEROSPACE LTD.  
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL  
AND IS PROVIDED ON THE EXPRESS CONDITION  
THAT IT IS NOT TO BE USED FOR ANY PURPOSE  
OR COPIED OR COMMUNICATED TO ANY OTHER  
PERSON WITHOUT WRITTEN PERMISSION FROM  
DART AEROSPACE LTD.

DART AEROSPACE LTD.  
HAWKESBURY, ONTARIO, CANADA

REV. A  
SHEET 1 OF 1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries